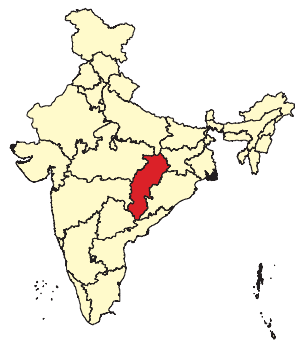


### Salient Features

- Wastelands area has increased by 373.54 sq. km.
- Maximum increase in wastelands area is observed under **land with open scrub** (153.51 sq. km.) followed by **Under-utilized/degraded forest (Scrub dominated)** by 77.84 sq. km.
- Raipur district witnessed maximum increase in wasteland (105.30 sq. km.) with the highest change is observed under **land with open scrub** (87.61 sq. km.).
- 84.77 sq. km. of wasteland area is converted to forest with major contribution from **Under-utilized/degraded forest (Scrub dominated)**.

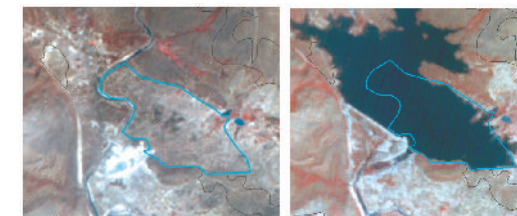
# CHHATTISGARH

## Spatial Distribution of Wastelands 2015-16

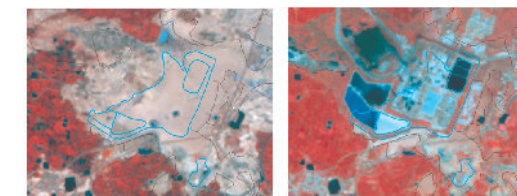


### Legend

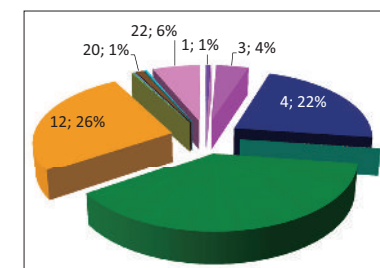
- Gullied and/ or ravinous land (Medium)
- Gullied and/ or ravinous land (Deep)
- Land with Dense Scrub
- Land with Open Scrub
- Waterlogged and Marshy land (Permanent)
- Waterlogged and Marshy land (Seasonal)
- Land Affected by salinity / alkalinity (Moderate)
- Land Affected by salinity / alkalinity (Strong)
- Shifting Cultivation - Current Jhum
- Shifting Cultivation - Abandoned Jhum
- Under-utilised/degraded forest (Scrub domin)
- Under-utilised/degraded forest (Agriculture)
- Degraded pastures/grazing land
- Degraded land under plantation crop
- Sands - Riverine
- Sands - Coastal
- Sands - Desertic
- Sands - Semi Stab:- Stab > 40m
- Sands - Semi Stab:- Stab 15-40m
- Mining Wastelands
- Industrial Wastelands
- Barren Rocky Area
- Snow Covered/ Glacial Area
- Non Wasteland Area
- Water ways
- District Boundary
- Railways
- Major Roads



Lat : 21°57'15.43"N Long : 83°23'49.023"E  
District : Durg  
08-09 : Dense Scrub; 15-16 : Water bodies



Lat : 21°57'27.378"N Long : 82°24'46.788"E  
District : Janjgir-Cham  
08-09 : Open Scrub; 15-16 : Industry



**Partner Inst.** Chhattisgarh Council of Science & Technology  
Vigyan Bhavan  
MIG -25, Indravati Colony  
Raipur – 492 007

**Executed By** Land Use & Cover Monitoring Divn.  
LRUMG, Remote Sensing Application  
National Remote Sensing Centre  
ISRO, Dept. of Space, GOI  
Balanagar, Hyderabad - 500037

**Sponsored by** Dept. of Land Resources  
Min. of Rural Development  
G - Wing, Nirman Bhawan  
GOI, New Delhi - 110 011

Total Geog. Area (TGA): 135194.00 sq. km.  
Total wasteland area : 10875.37 sq. km.  
Wasteland Percentage: 8.04

Source: Wasteland Maps: 2008-09 on 1:50,000 scale,  
Three seasons IRS P6 LISS-III data of Kharif (Oct/Nov-2015),  
Rabi (Jan/Feb-2016) and Zaid (April/May-2016) & Ground truth

## CHHATTISGARH

### Wastelands Area Change Matrix : 2008-09 and 2015-16

Area in sq.km

WL Category	WL during 2008-09 remaining as WL in 2015-16															WL 2008-09 becoming non_WL in 2015-16												2008-09		
	1	2	3	4	5	6	10	11	12	13	14	15	20	21	22	24	25	26	27	28	29	30	31	32	Category Total	Grand Total				
1	64.30																								64.30	10501.83				
2		12.07																									12.07			
3			430.14	6.96								1.00			5.45	2.06	11.21	0.73	1.52			0.08		0.77	459.93					
4			21.97	2175.47				0.26				0.23	5.90	4.05	4.76	9.55	17.89	1.12	3.87		0.91	0.28	6.79	2253.04						
5					0.82																				0.82					
6						1.93																			1.93					
10							0.16																		0.16					
11							3981.14	25.33				0.78		4.04	0.27				0.90	79.43	0.30		0.53	4092.71						
12						0.02	3.87	2816.06		0.12		0.28	0.53	0.04	0.48	0.35				5.34	0.07		1.13	2828.30						
13									0.09																0.09					
14										17.55															17.55					
15			0.90	0.09								23.73					2.28							3.83	30.83					
20												38.14				0.05									38.19					
21														15.99											15.99					
22												1.53	0.40	681.64	0.22	2.14									685.93					
999	0.90	3.36	18.13	224.02	0.05		185.29	25.52	0.29	0.30	2.81	60.73	16.29	0.13																
Category Total (2015-16)	65.21	15.43	471.14	2406.55	0.87	1.95	0.16	4170.55	2866.91	0.38	17.98	26.78	108.37	37.25	685.85	11.18	14.15	31.38	1.85	6.29	84.77	1.36	0.28	13.04						
Grand Total (2015-16)	10875.37																													

WL Category	Reduction from 0809 to 1516		Increase from 0809 to 1516	
	Area	No of polygons	Area	No of polygons
1			0.90	3
2			3.36	2
3	21.82	98	18.13	89
4	45.17	267	224.02	1217
5			0.05	1
6				
10				
11	81.42	416	185.29	759
12	7.38	83	25.52	150
13			0.29	2
14			0.30	3
15	6.10	94	2.81	31
20	0.05	1	60.73	161
21			16.29	48
22	2.35	9	0.13	1
Total	164.30	968	537.84	2467

Wastelands becoming Non-wastelands (-) **164.30**  
 Non-wastelands becoming Wastelands (+) **537.84**  
 NET Change (2015 - 16) - (2008 - 09) (+) **373.54**

**Green** denotes Change from wasteland to non-wasteland  
**Red** denotes change from non-wasteland to wastelands  
**Blue** denotes no change in the wasteland category  
 2008 - 09 Wastelands statistics are revised version.  
 Area under category total is rounded to nearest decimal.

Wasteland Classes	Non-Wasteland Classes
1. Gullied and/ or ravinous land (Medium)	24. Built-up
2. Gullied and/ or ravinous land (Deep)	25. Industrial Area
3. Land with Dense Scrub	26. Cropland
4. Land with Open Scrub	27. Fallow Land
5. Waterlogged and Marshy land (Permanent)	28. Plantation
6. Waterlogged and Marshy land (Seasonal)	29. Forest-Dense/Open
7. Land affected by salinity/alkalinity (Medium)	30. Forest Plantation
8. Land affected by salinity/alkalinity (Strong)	31. Grasslands
9. Shifting Cultivation - Current Jhum	32. Waterbodies
10. Shifting Cultivation - Abandoned Jhum	
11. Under-utilised/degraded forest (Scrub domin)	
12. Under-utilised/degraded forest (Agriculture)	
13. Degraded pastures/ grazing land	
14. Degraded land under plantation crop	
15. Sands-Riverine	
16. Sands-Coastal	
17. Sands-Desertic	
18. Sands-Semi Stab.-Stab>40m	
19. Sands-Semi Stab.-Stab 15-40m	
20. Mining Wastelands	
21. Industrial wastelands	
22. Barren Rocky/Stony waste	
23. Snow covered /Glacial area	
999. Non-Wasteland Area	



## Chhattisgarh

Wastelands Area Changes – 2008-09 and 2015-16

District	WL_Class	1	2	3	4	5	6	7	8	9	10	11
Bastar	2008-09	--	--	33.90	91.87	0.54	0.44	--	--	--	--	404.05
	2015-16	--	--	32.90	100.92	0.54	0.44	--	--	--	--	400.62
	Change	--	--	-0.99	9.05	0.00	0.00	--	--	--	--	-3.43
Bilaspur	2008-09	9.30	2.48	43.22	168.28	--	--	--	--	--	--	97.64
	2015-16	9.39	2.48	53.95	176.11	--	--	--	--	--	--	113.81
	Change	0.09	0.00	10.73	7.83	--	--	--	--	--	--	16.17
Dantewada	2008-09	--	--	7.18	7.49	--	0.65	--	--	--	--	614.56
	2015-16	--	--	7.28	9.42	--	0.65	--	--	--	--	576.45
	Change	--	--	0.09	1.93	--	0.00	--	--	--	--	-38.11
Dhamtari	2008-09	--	--	2.22	19.37	--	0.20	--	--	--	--	116.85
	2015-16	--	--	2.36	17.97	--	0.20	--	--	--	--	115.41
	Change	--	--	0.15	-1.39	--	0.00	--	--	--	--	-1.44
Durg	2008-09	--	--	57.49	279.61	--	0.54	--	--	--	--	72.98
	2015-16	--	--	40.25	287.02	--	0.54	--	--	--	--	73.24
	Change	--	--	-17.25	7.41	--	0.00	--	--	--	--	0.26
Janjgir Champa	2008-09	--	--	5.59	130.40	--	--	--	--	--	--	21.95
	2015-16	--	--	9.49	142.84	--	--	--	--	--	--	33.06
	Change	--	--	3.90	12.44	--	--	--	--	--	--	11.11
Jashpur	2008-09	8.52	--	30.04	141.31	--	--	--	--	--	0.16	96.51
	2015-16	8.57	--	29.88	148.84	--	--	--	--	--	0.16	98.44
	Change	0.05	--	-0.16	7.53	--	--	--	--	--	0.00	1.93
Kanker	2008-09	--	--	15.44	30.82	--	--	--	--	--	--	92.24
	2015-16	--	--	15.86	29.50	--	--	--	--	--	--	88.13
	Change	--	--	0.42	-1.31	--	--	--	--	--	--	-4.11
Kawardha	2008-09	--	--	3.30	30.37	--	--	--	--	--	--	86.12
	2015-16	--	--	4.63	31.69	--	--	--	--	--	--	96.75
	Change	--	--	1.34	1.32	--	--	--	--	--	--	10.63
Korba	2008-09	3.15	--	47.41	193.20	0.28	--	--	--	--	--	300.41
	2015-16	3.92	--	49.56	202.13	0.28	--	--	--	--	--	341.26
	Change	0.77	--	2.15	8.93	0.00	--	--	--	--	--	40.85
Koriya	2008-09	7.16	4.80	9.73	107.12	--	--	--	--	--	--	392.95
	2015-16	7.16	4.80	9.73	108.72	--	--	--	--	--	--	401.74
	Change	0.00	0.00	0.00	1.59	--	--	--	--	--	--	8.78
Mahasamund	2008-09	3.88	--	35.47	85.63	--	0.04	--	--	--	--	97.15
	2015-16	3.88	--	35.98	85.78	--	0.04	--	--	--	--	99.53
	Change	0.00	--	0.51	0.15	--	0.00	--	--	--	--	2.37
Raigarh	2008-09	0.18	--	38.95	141.76	--	--	--	--	--	--	222.67
	2015-16	0.18	--	39.15	136.83	--	--	--	--	--	--	239.83
	Change	0.00	--	0.20	-4.92	--	0.00	--	--	--	--	17.16
Raipur	2008-09	--	--	29.75	274.75	--	0.01	--	--	--	--	376.35
	2015-16	--	--	39.83	362.36	--	0.03	--	--	--	--	368.23
	Change	--	--	10.07	87.61	--	0.02	--	--	--	--	-8.12

Note: "--" Denotes this Class is not existing in the District / State

2008-09 Wastelands statistics are revised version.

- |  |  |
|--|--|
| 1. Gullied and/ or ravine land (Medium)    | 7. Land affected by salinity/alkalinity (Medium) |
| 2. Gullied and/ or ravine land (Deep)      | 8. Land affected by salinity/alkalinity (Strong) |
| 3. Land with Dense Scrub                   | 9. Shifting Cultivation - Current Jhum           |
| 4. Land with Open Scrub                    | 10. Shifting Cultivation - Abandoned Jhum        |
| 5. Waterlogged and Marshy land (Permanent) | 11. Under-utilised/degraded forest (Scrub domin) |
| 6. Waterlogged and Marshy land (Seasonal)  | 12. Under-utilised/degraded forest (Agriculture) |

Area in sq.km

12	13	14	15	16	17	18	19	20	21	22	23	Total	TGA
222.28	--	--	--	--	--	--	--	0.39	--	35.15	--	788.62	14974
222.28	--	--	--	--	--	--	--	0.71	--	35.15	--	793.56	
0.00	--	--	--	--	--	--	--	0.32	--	0.00	--	4.94	
78.68	--	0.92	2.65	--	--	--	--	2.60	1.07	5.37	--	412.22	7215
80.37	--	0.92	0.72	--	--	--	--	3.47	4.83	3.64	--	449.68	
1.69	--	0.00	-1.93	--	--	--	--	0.86	3.76	-1.73	--	37.46	
897.88	--	--	--	--	--	--	--	3.92	--	35.64	--	1567.32	17634
911.31	--	--	--	--	--	--	--	4.45	--	35.64	--	1545.19	
13.43	--	--	--	--	--	--	--	0.53	--	0.00	--	-22.13	
36.12	--	--	2.44	--	--	--	--	0.12	--	0.74	--	178.05	4049
35.89	--	--	1.42	--	--	--	--	0.12	--	0.74	--	174.12	
-0.23	--	--	-1.01	--	--	--	--	0.00	--	0.00	--	-3.93	
13.44	--	--	0.65	--	--	--	--	6.40	3.79	22.53	--	457.42	8537
14.45	--	--	0.06	--	--	--	--	8.28	3.79	22.34	--	449.96	
1.01	--	--	-0.59	--	--	--	--	1.87	0.00	-0.19	--	-7.46	
1.09	--	--	3.71	--	--	--	--	2.91	0.53	12.02	--	178.18	3672
1.03	--	--	3.27	--	--	--	--	6.91	4.14	10.93	--	211.66	
-0.06	--	--	-0.44	--	--	--	--	4.00	3.61	-1.09	--	33.48	
39.27	--	--	0.11	--	--	--	--	0.65	--	55.91	--	372.47	5838
39.28	0.14	--	0.11	--	--	--	--	1.60	--	56.05	--	383.06	
0.02	0.14	--	0.00	--	--	--	--	0.95	--	0.13	--	10.59	
129.61	--	--	--	--	--	--	--	--	--	7.79	--	275.88	6506
130.04	--	--	--	--	--	--	--	0.14	--	7.79	--	271.47	
0.44	--	--	--	--	--	--	--	0.14	--	0.00	--	-4.42	
72.21	--	--	0.07	--	--	--	--	0.35	--	0.14	--	192.56	4223
70.78	--	--	--	--	--	--	--	4.17	0.38	0.14	--	208.55	
-1.42	--	--	-0.07	--	--	--	--	3.82	0.38	0.00	--	15.99	
186.98	--	1.40	7.98	--	--	--	--	4.48	5.55	87.14	--	837.98	9010
191.16	--	1.40	8.09	--	--	--	--	20.15	14.21	87.14	--	919.29	
4.18	--	0.00	0.11	--	--	--	--	15.67	8.66	0.00	--	81.31	
81.14	--	0.09	0.60	--	--	--	--	3.05	--	100.19	--	706.83	6604
81.19	--	0.09	0.60	--	--	--	--	4.94	--	100.20	--	719.15	
0.05	--	0.00	0.00	--	--	--	--	1.89	--	0.01	--	12.33	
55.87	--	--	0.81	--	--	--	--	1.07	0.02	28.97	--	308.92	4702
56.91	--	0.09	0.81	--	--	--	--	2.94	0.18	29.32	--	315.45	
1.04	--	0.09	0.00	--	--	--	--	1.87	0.15	0.35	--	6.52	
53.09	0.09	--	0.76	--	--	--	--	3.20	4.80	89.53	--	555.02	7086
54.79	0.09	--	0.76	--	--	--	--	16.21	8.45	89.09	--	585.39	
1.70	0.00	--	0.00	--	--	--	--	13.01	3.65	-0.44	--	30.36	
252.94	--	--	7.51	--	--	--	--	0.86	0.22	119.22	--	1061.61	12507
254.23	--	--	7.77	--	--	--	--	11.14	1.24	122.10	--	1166.91	
1.29	--	--	0.26	--	--	--	--	10.28	1.02	2.88	--	105.30	

TGA - Total Geographical Area

13. Degraded pastures/ grazing land	19. Sands-Semi Stab.-Stab 15-40m
14. Degraded land under plantation crop	20. Mining Wastelands
15. Sands-Riverine	21. Industrial wastelands
16. Sands-Coastal	22. Barren Rocky/Stony waste
17. Sands-Desertic	23. Snow covered /Glacial area
18. Sands-Semi Stab.-Stab>40m	



## Chhattisgarh contd...

Wastelands Area Changes - 2008-09 and 2015-16

District	WL_Class	1	2	3	4	5	6	7	8	9	10	11
Raj Nandgaon	2008-09	--	--	6.02	169.22	--	--	--	--	--	--	153.69
	2015-16	--	--	6.20	166.29	--	--	--	--	--	--	158.24
	Change	--	--	0.17	-2.93	--	--	--	--	--	--	4.54
Surguja	2008-09	32.13	4.79	94.22	381.84	--	0.05	--	--	--	--	946.60
	2015-16	32.13	8.15	94.10	400.13	0.05	0.05	--	--	--	--	965.83
	Change	0.00	3.36	-0.12	18.29	0.05	0.00	--	--	--	--	19.22
Grand Total	2008-09	64.30	12.07	459.93	2253.04	0.82	1.93	--	--	--	0.16	4092.71
	2015-16	65.21	15.43	471.14	2406.55	0.87	1.95	--	--	--	0.16	4170.55
	Change	0.90	3.36	11.22	153.51	0.05	0.02	--	--	--	0.00	77.84

## Chhattisgarh contd...

Wastelands Area Changes - 2008-09 and 2015-16

Area in sq.km

12	13	14	15	16	17	18	19	20	21	22	23	Total	TGA
120.13	--	--	0.93	--	--	--	--	0.73	--	4.97	--	455.69	6904
121.43	--	--	--	--	--	--	--	0.67	--	4.97	--	457.81	
1.31	--	--	-0.93	--	--	--	--	-0.05	--	0.00	--	2.12	
587.57	--	15.14	2.62	--	--	--	--	7.47	--	80.63	--	2153.05	15733
601.77	0.15	15.47	3.16	--	--	--	--	22.46	0.04	80.63	--	2224.12	
14.20	0.15	0.33	0.54	--	--	--	--	15.00	0.04	0.00	--	71.07	
2828.30	0.09	17.55	30.83	--	--	--	--	38.19	15.99	685.93	--	10501.83	135194
2866.91	0.38	17.98	26.78	--	--	--	--	108.37	37.25	685.85	--	10875.37	
38.62	0.29	0.43	-4.05	--	--	--	--	70.17	21.27	-0.08	--	373.54	

- |  |  |                                  |
|--|--|----------------------------------|
| 1. Gullied and/ or ravinous land (Medium)        | 9. Shifting Cultivation - Current Jhum           | 17. Sands-Desertic               |
| 2. Gullied and/ or ravinous land (Deep)          | 10. Shifting Cultivation - Abandoned Jhum        | 18. Sands-Semi Stab.-Stab>40m    |
| 3. Land with Dense Scrub                         | 11. Under-utilised/degraded forest (Scrub domin) | 19. Sands-Semi Stab.-Stab 15-40m |
| 4. Land with Open Scrub                          | 12. Under-utilised/degraded forest (Agriculture) | 20. Mining Wastelands            |
| 5. Waterlogged and Marshy land (Permanent)       | 13. Degraded pastures/ grazing land              | 21. Industrial wastelands        |
| 6. Waterlogged and Marshy land (Seasonal)        | 14. Degraded land under plantation crop          | 22. Barren Rocky/Stony waste     |
| 7. Land affected by salinity/alkalinity (Medium) | 15. Sands-Riverine                               | 23. Snow covered /Glacial area   |
| 8. Land affected by salinity/alkalinity (Strong) | 16. Sands-Coastal                                |                                  |

